

Hilcorp Energy (formerly ConocoPhillips Company)¹
Ute Compressor Station
Full Compliance Evaluation (FCE)
On-Site Clean Air Act Evaluation

Inspection Date: May 15, 2018

Date of Inspection Report: July 3, 2018

EPA Representative Laurie Ostrand

Tribal Representatives: David Heermance, Southern Ute Indian Tribe
Andrew Switzer, Southern Ute Indian Tribe

Company Representatives Jennifer Deal, Hilcorp.
Cory Minton, Operations Manager, Elite San Juan²
Clint Thompson, Area Supervisor, Elite San Juan

Inspection Report Prepared By: Laurie Ostrand /s/

Inspection Report Reviewed By: Scott Patefield /s/

Applicable Rules: MACT ZZZZ (both area), NSPS JJJJ and Tribal minor new source review

CAA Permit History SMNSR-SU-000054-2016.002³

Issued: March 21, 2017 (Administrative Revision)

I. General Source Information

Parent Company Name: Hilcorp Energy

Corporate Office Location: 382 Road 3100, Aztec, NM 87410

Facility Name: Ute Compressor Station

Facility Location Latitude 37.0173N, Longitude -108.0201W

EPA Region: 8

County, State: La Plata County, Colorado

Reservation: Southern Ute Indian Reservation

Tribe: Southern Ute Indian Tribe

SIC Code: 1311

¹ This facility was formally owned and operated by ConocoPhillips but as of August 1, 2017 was purchased by Hilcorp.

² Hilcorp contracts with Elite San Juan to operate and maintain the compressors for Hilcorp.

³ The EPA issued the first synthetic minor permit for the Ute Compressor Station on October 15, 2014.

AFS Plant Id Number: 08-067-U0047
Other Clean Air Act Permits: None

II. Summary of Enforcement Actions: *No Federal enforcement in the past five (5) years. Although, the permit incorporates an 8/29/12 Federal Compliance Agreement and Final Order (CAFO) between the EPA and ConocoPhillips, Docket No.: CAA-08-2011-0032.*

Additionally, the permit incorporates requirements from a 9/12/16 Settlement Agreement and Stipulated Final Compliance Order, Enforcement, Case ID: 2016-05, with the Southern Ute Indian Tribe Environmental Programs Division, Air Quality Program (Settlement Agreement). The Settlement Agreement was established to bring ConocoPhillips into compliance with the Reservation Air Code (RAC) after it was discovered that there were RAC violations during an on-site inspection and records review on 5/10/16. The Settlement Agreement specifically required monthly auditory, visual and olfactory (AVO) monitoring of the condensate storage tanks operating at the facility. The Settlement Agreement required ConocoPhillips to apply to the EPA for a revision of MNSR Permit# SMNSR-SU-000054-2012.001 to incorporate the stipulated requirements.

III. Overall Inspection Findings

As of the date of this inspection report, not all needed information was provided. Once all information is received EPA will issues an addendum to this report. EPA is still waiting to receive catalyst replacement information 5/1/16 to 4/30/18.

- If ASTM D6348 is going to be used for performance testing, the performance test protocol should be revised to assure that ASTM D6348-03 is used rather than ASTM D6348-12.*
- Based on the information provided, it's not clear whether all appropriate actions have been taken when engine pre-catalyst temperature falls below 405°F;*
- When Hilcorp initially purchased Ute they were late in submitting performance test results and failed to notify EPA of upcoming testing. This issue has since been resolved.*

IV. Description of Facility

The Ute Compressor Station (Ute) compresses natural gas. The natural gas comes from wells located in the vicinity of the Florida River producing natural gas from the Fruitland Coal Formation. Field gas is gathered and transported to the facility via pipelines for liquid separation and natural gas compression. The inlet fluid flows through a two-phase inlet separator where natural gas and liquids are separated. The liquids flow to two 300-bbl above ground condensate storage tanks where oil and free water separate out. The water is transferred to a 120-bbl pit tank, where it is stored until it is hauled away via tank truck to a commercial facility for proper disposal. The oil is sold as product and shipped off-site via tank truck. The gas is compressed then transported off-site via pipeline. Liquids that drop out during compression are routed to the two condensate storage tanks.

The facility currently operates one 4-stroke, lean burn (4SLB) Waukesha L5790GL, rated at 1,215 hp (Emission Unit (E-1), one 4SLB Waukesha L7042 GL, rated at 1,478 hp (Emission Unit E-2 two condensate tanks (TK-5080, TK-5081). Other emission unit operated at the location include combustion turbines, heated separators, truck loading of condensate, fugitive emissions, and miscellaneous storage tanks.

In addition to the MNSR permit, the facility has the following regarding regulatory applicability, with respect to:

- Engine E001 was modified in 2011 and is subject to NSPS Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, and that E-2 was constructed prior to July 1, 2007 and is not subject to Subpart JJJJ.
- Engine E002 was manufactured in 10/01 and must meet the area source requirements in NESHAP ZZZZ (MACT ZZZZ), National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Engine E01 was modified (reconstructed) in 2011 and meets the requirements of MACT ZZZZ by meeting NSPS Subpart JJJJ.

Note that on 10/15/12 ConocoPhillips sent in an initial notification indicating that a reciprocating compressor, with serial number F17693, installed on 9/15/11 was subject to NSPS Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011. In a letter dated 12/19/13, ConocoPhillips indicated that after further review they found that the initial construction date of the compressor was July 20, 2005 and, therefore, it is not an affected facility under Subpart OOOO.

In a September 2016 settlement agreement between the Southern Ute Indian Tribe (SUIT) and ConocoPhillips, ConocoPhillips agreed to permanently decommission and physically disconnect from the process, glycol dehydration emission unit DEHY-1 and associated condensate tank emission unit TK-8094A. In an April 21, 2017 letter from the SUIT to ConocoPhillips, SUIT indicated that since the dehydration system from the Ute Compressor Station, the source is no longer major source for HAPs and terminated the SUIT Title V operating permit.

Table 1: Emission Units and Emission Generating Activities

Unit ID	Description	Control Equipment	Observations
E001 Engine #3)	Natural Gas Fired Waukesha 4-SLB Engine Reciprocating internal combustion engine (RICE) Model No. L 5790 GL - 1215 hp* Serial Number: 240747 Manufacture Date: Prior to 07/01/07 Modified: 2011	Oxidation Catalyst	<i>Operating</i> <i>Serial # read: 240747</i> <i>Rebuilt date: 12/23/11</i> <i>Catalyst inlet temp: 523.5°F</i> <i>Pressure drop across catalyst: 5.1"</i> <i>Inlet pressure: 16 psi; 1st stage: 200 psi;</i> <i>2nd stage: 250; RPM: 1015</i> <i>Per 5/30/18 email from Ms. Deal:</i> <i>Install date: 05/23/2007</i> <i>Manufacture date: Unknown</i> <i>Rebuild date: 01/04/2012</i>
E002 (Engine #)1	Natural Gas Fired Waukesha 4-SLB Engine Reciprocating internal combustion engine (RICE) Model No. L 7042 GL - 1478 hp* Serial Number: C-13014/1 ⁴ Manufacture Date: Prior to 10/31/01	Miratech Oxidation Catalyst	<i>Operating</i> <i>Serial # read: C13014/1</i> <i>Rebuilt date: 4/2013</i> <i>Catalyst inlet temp: 655.1°F</i> <i>Pressure drop across catalyst: 5.9"</i> <i>Inlet pressure: 18 psi; 1st stage: 80 psi;</i> <i>2nd stage: 150; RPM: 1018</i> <i>Per 5/30/18 email from Ms. Deal:</i> <i>Install date: 01/12/2005</i> <i>Manufacture date: 04/2000</i> <i>Rebuild date: 04/12/2013</i>
TK-1, TK-2	2– 300 bbl* condensate tanks		

⁴5/5/15 Like-Kind Replacement notification indicated C-13404/1 replaced E001 (EPA assumes they were referring to Engine #1). Notification indicates that the manufacture date is 10/31/01.

Unit ID	Description	Control Equipment	Observations
E00	Heaters: 1 – 0.014MMbtu/hr* Dehydrator Reboiler 1 – 0.014MMbtu/hr Auxiliary Heater 1 – 0.012MMbtu/hr Auxiliary Heater		

* Mfg = Manufactured; hp = horsepower; bbl = barrel; MMscfd = million standard cubic feet per day; bbl = barrel; kW = kilowatt

Table 2 – Insignificant Emission units

Description	Observations
2 - 4,512-gallon oil tanks (UOT-1, OT01)	
1 - 3,454-gallon coolant storage tank (CT-1)	
1 – 1,130-gall triethylene glycol storage tank (GT-1)	
1 – 3,454-gallon methanol tank (MT-1)	
2 – 250-gallon oil tanks (OT-2, OT-3)	
1 - 250-gallon antifreeze tank (AT-1)	
1 – 5,040-gallon below-grade pit sump liquids tank (BGT-1)	
1 – 5,040-gallon below-grade condenser liquids tank (BGT-2)	
1 – 30 kW Turbine (T-1)	<i>Not operating – backup to 65 kW Turbine Serial # 002987; Date of manufacture 3/2/01</i>
1 – 65 kW turbine (T-2)	<i>Operating, Serial # 004919, model 65RHD3BU00, Date of manufacture 9/16/08</i>
1 - Fugitive Emissions	
1 - Truck Loading of Condensate	

Table 3: Potential-to-Emit with Legally and Practically Enforceable Controls (tons per year)

Unit ID	NO _x *	CO*	VOC*	PM*	SO ₂ *	CH ₂ O*	Total HAPs*
E-1	32.73	43.64	10.91	0.36	0.54	3.16	3.68
E-2	23.89	11.95	13.27	0.43	0.65	0.96	1.57
TK-5080	-	-	6.90	-	-	-	0.49
TK-5081	-	-	6.90	-	-	-	0.49
IEUs	0.27	1.61	2.11	0.05	0.79	-	-
Total	56.89	57.20	40.10	0.83	1.98	4.12	6.23

*NO_x = nitrogen oxide; CO = carbon monoxide; VOC = volatile organic compound; PM = particulate matter; SO₂ = sulfur dioxide; CH₂O = formaldehyde; HAP = hazardous air pollutant.

V. General Inspection Observations and Commentary:

On May 15, 2018, EPA representative Laurie Ostrand met David Heermance and Andrew Switzer air quality specialists with the Southern Ute Indian Tribe just over the New Mexico border on Hwy 550. We travelled together and to meet Jennifer Deal, Hilcorp, and Cory Minton and Clint Thompson from Elite San Juan (a contractor for Hilcorp) a few miles south on Hwy 550 at 7:46 am. We then caravanned to Ute.

VI. Opening Meeting:

We arrived at Ute at 8:07 am. Ms. Ostrand indicated that we wanted to assess compliance with the MNSR permit as well as with other regulatory requirements. Mr. Minton provided a brief safety meeting.

VII. Walk Through Inspection Observations:

Mr. Minton indicated that:

- *Gas coming into the facility is from Hilcorp wells and that one well is coal bed methane and the other wells are conventional wells;*
- *Gas leaving the facility typically goes to the Greeley system but can go to the Valverde system (e.g., if there's an upset);*
- *The Dehydrator, condenser and associated condensate tank is out of service and it's locked out and the fuel disconnected;*
- *The turbines supply power to the plant and run on plant fuel gas;*
- *They continuously monitor catalyst inlet temperature and catalyst pressure differential but records data every 15 minutes;*
- *Person who runs that station does a monthly check of the condensate tanks; keeps track of all repairs; and information is uploaded to maintenance tracking system;*
- *They use No-bleed or Low-bleed pneumatics;*
- *The engine rebuild schedule is about every 48,000 hours;*
- *Engine #1 is the same size as the engines at Argenta and Sunnyside;*
- *They own an extra "swing" engine that is the same size engine as Engine #1 so that that they can easily replace an engine that needs a rebuild with the swing engine;*
- *To rebuild Engine #3 they need to remove the engine and wait for the rebuild;*
- *All engines have air fuel ratio controller (AFRC);*
- *When there's a deviation of the catalyst pressure drop they (1) look at lines to make sure all liquid is drained (with long lines and changes in temperature get build of water in stainless steel lines); (2) look at temperature and delta P and if off spec they inspect the catalyst and either clean or replace as needed;*
- *They have people onsite once or twice a per week and it's their job to drains the lines.*



Image 1: Aerial view of Ute CS from Google Maps.

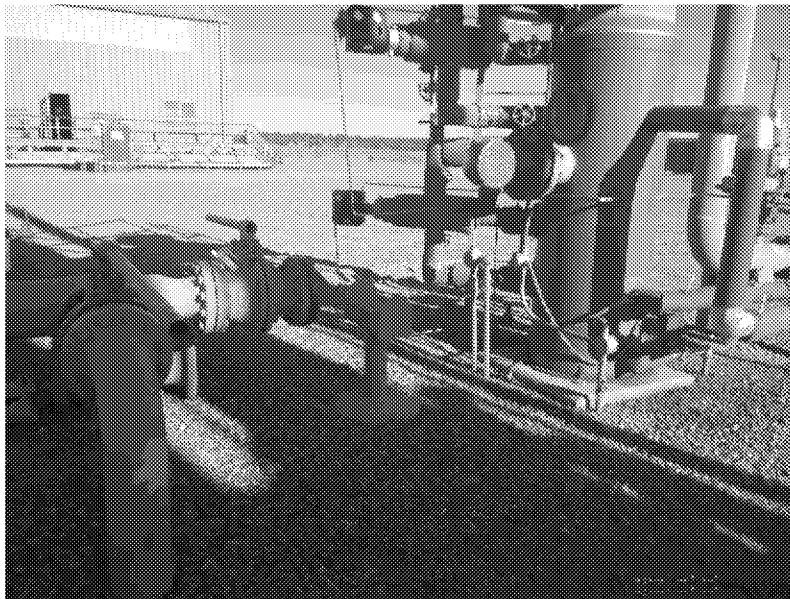


Image 2: Ute CS showing the blinded off line of gas to the dehydrator. RIMG0021.jpg

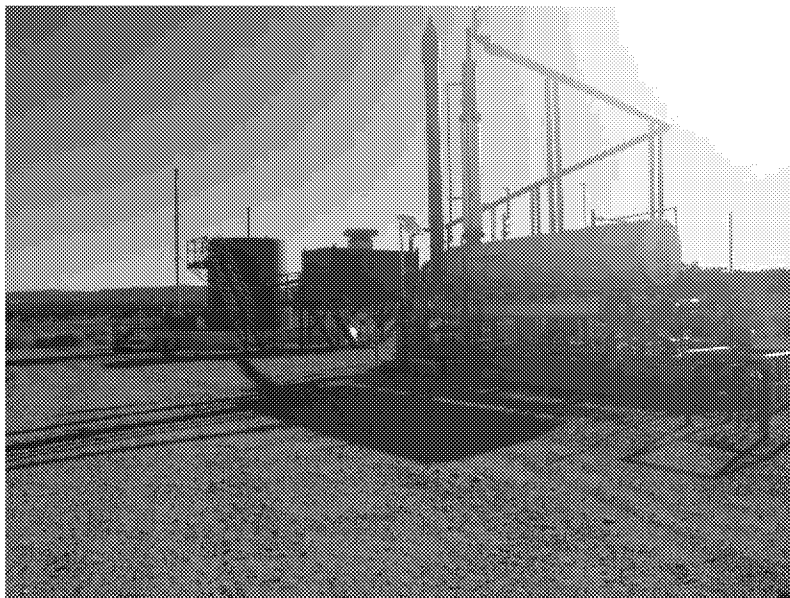


Image 3: Ute CS dehy reboiler and tank no longer connected. RIMG0022.jpg



Image 4: Ute CS backside of engines, catalyst part of muffler, Engine #3 closest and Engine #1 farthest away. RIMG0023.jpg



Image 5: Ute CS tanks. Two larger tanks are condensate in back, tank front right is used oil,

middle tank is new oil and tank on left is antifreeze. RIMG0024.jpg

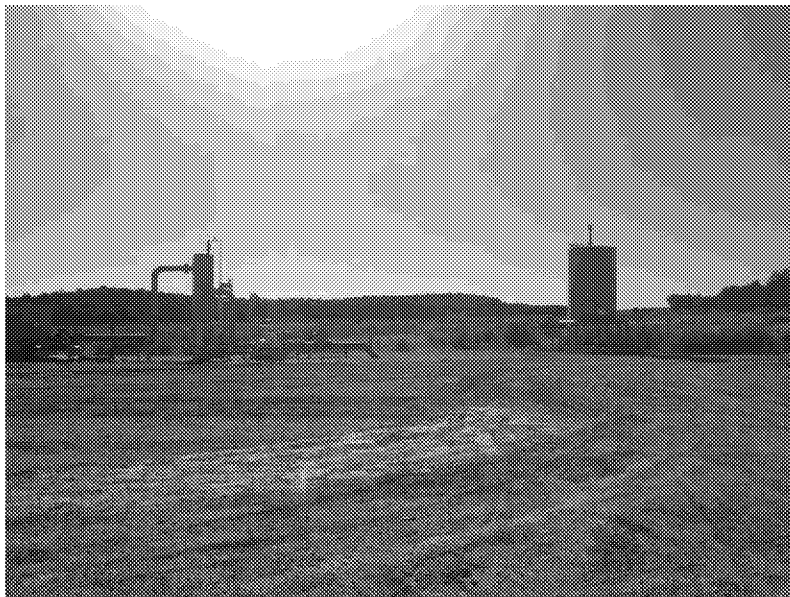


Image #6: Ute CS, Inlet on left on methanol tank on right. RIMG0025.jpg



Image #7. Ute CS compressor building. RIMG0026.jpg



Image #8: Ute CS Inlet on right and two dehy contactors (not operating). RIMG0027.jpg

III. Permit Requirements:

I. Conditional Permit to Construct

C. Requirements for 1,478 Horsepower Engine

1. Construction and Operational Limits

The Permittee shall install and operate emission controls as specified in this permit on one (1) reciprocating internal combustion engine meeting the following specifications:

- (a) Operated as a 4-stroke lean-burn;
- (b) Fired with natural gas; and
- (c) Limited to a maximum site rating of 1,478 hp.

Observations: Hilcorp's database indicates that the both engines are Waukesha and one is a model L7042GL with 1478 hp and the other is a model L5790GL with 1215 hp. The permit application indicates that the 1478 hp engine is altitude derated to 1375 hp and is fired on natural gas.

2. Emission Limits

- (a) Emissions from the engine shall not exceed the following:
 - (i) NO_x: 5.5 pounds per hour (lb/hr);
 - (ii) CO: 2.7 lb/hr; and
 - (iii) CH₂O: 0.22 lb/hr.
- (b) Emission limits shall apply at all times, unless otherwise specified in this permit.

Observations: See Table 5 below showing annual stack test results and Table 7 showing quarterly monitoring results.

3. Control and Operational Requirements

- (a) The Permittee shall ensure that the engine is equipped with a catalytic control system capable of reducing the uncontrolled emissions of CO and CH₂O to meet the emission limits specified in this permit.

Observations: During the inspection, Mr. Minton identified where the catalyst was located on the engine stack, i.e., the catalyst is integrated into the muffler. See Image #4.

- (b) The Permittee shall install, operate, and maintain a temperature sensing device (i.e., thermocouple or resistance temperature detectors) before the catalytic control system on the engine in order to continuously monitor the exhaust temperature at the inlet of the catalyst bed. The temperature sensing device shall be calibrated and operated by the Permittee according to manufacturer and/or vendor specifications or specifications developed by the Permittee or vendor.

Observations: During the inspection, Ms. Ostrand observed the real-time pre-catalyst inlet temperature being monitored on each engine. See also information below regarding temperature data provided following the inspection.

- (c) Except during startups, which shall not to exceed 30 minutes, the engine exhaust temperature of the engine, at the inlet to the catalyst bed, shall be maintained at all times the engine operates with an inlet temperature of at least 450 °F and no more than 1,350 °F.

Observations: No start-ups were observed during the inspection. See discussion below regarding review of temperature data submitted following the inspection.

- (d) During operation, the pressure drop across the catalyst bed on the engine shall be maintained to within ± 2 inches of water from the baseline pressure drop measured during the most recent performance test. The baseline pressure drop for the catalyst bed shall be determined at $100\% \pm 10\%$ of the engine load measured during the most recent performance test.

Observations: During the inspection, Ms. Ostrand observed the real-time pressure drop monitored across each engine catalyst. See information below regarding pressure drop readings provided following the inspection.

- (e) The Permittee shall only fire the engine with natural gas. The natural gas shall be pipeline-quality in all respects except that the carbon dioxide (CO₂) concentration in the gas is not required to be within pipeline-quality.

Observations: In an email dated 6/25/18, Ms. Deal indicated that they perform annual gas analysis to demonstrate that the fuel used for engines is pipeline quality natural gas.

- (f) The Permittee shall follow, for the engine and its respective catalytic control system, the manufacturer and/or recommended maintenance schedule and procedures or equivalent maintenance schedule and procedures developed by the Permittee or vendor to ensure optimum performance of the engine and its respective catalytic control system.

Observations: During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. Ms. Deal indicated that the catalyst maintenance is also included in the Task Lists. In an email dated 6/6/18, Ms. Deal provided engine and catalyst manufacturer recommended maintenance specifications. In an email dated 6/25/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018.

- (g) The Permittee may rebuild the existing permitted engine or replace the existing permitted engine with an engine of the same horsepower rating, and configured to operate in the same manner as the engine being rebuilt or replaced. Any emission limits, requirements, control technologies, testing or other provisions that apply to the permitted engine that is rebuilt or replaced shall also apply to the rebuilt and replaced engine.

Observations: In an email dated 5/30/18, Ms. Deal indicated that #1 (SN C-13014/1) was installed on 1/12/05 and rebuilt on 4/12/13; and #2 (SN 240747) was installed on 5/23/07 and rebuilt on 1/4/12. The rebuild dates that Ms. Ostrand observed during the inspection are consistent with the information provided by Ms. Deal.

- (h) The Permittee may resume operation without the catalytic control system during an engine break-in period, not to exceed 200 operating hours, for rebuilt and replaced engines.

Observations: None made during the inspection.

4. Performance Testing Requirements

- (a) Performance tests shall be conducted on the engine for measuring NO_x, CO, and CH₂O emissions to demonstrate compliance with each emission limitation in this permit. The performance tests shall be conducted in accordance with appropriate reference methods specified in 40 CFR part 63, appendix A and 40 CFR part 60, appendix A, or an EPA approved American Society for Testing and Materials (ASTM) method. The Permittee may submit to the EPA a written request for approval of an alternate test method, but shall only use that alternate test method after obtaining approval from the EPA.
- (i) The initial performance test for the engine shall be conducted within 90 calendar days of startup of a new engine.
- (ii) Subsequent performance tests for CH₂O emissions shall be conducted within 12 months of the most recent performance test.
- (iii) Performance tests shall be conducted within 90 calendar days of each catalyst replacement.

- (iv) Performance tests shall be conducted within 90 calendar days of startup of all rebuilt and replaced engines.

Observations: See Table 5, below, for annual performance tests results. Engine installation date and rebuild date are provided in the **Observations** under Section C.3(g), above. As of the date of this report the catalyst replacement dates had not yet been provided to EPA.

- (b) The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or processes or operational parameters the day of the engine testing or during the engine testing. Any such tuning or adjustments may result in a determination by the EPA that the test is invalid. Artificially increasing the engine load to meet testing requirements is not considered engine tuning or adjustments.

Observations: During the records review Ms. Deal indicated that since she's been there she is not aware of any testing being aborted or any tuning or adjustments being made during testing.

- (c) The Permittee shall not abort any engine test that demonstrates non-compliance with the emission limits in this permit.

Observations: See discussion immediately above.

- (d) All performance tests conducted on the engine shall meet the following requirements:
 - (i) The pressure drop across the catalyst bed and the inlet temperature to the catalyst bed shall be measured and recorded at least once during each performance test.
 - (ii) All tests for NO_x and CO emissions shall be performed simultaneously.
 - (iii) All tests shall be performed at a maximum operating rate (90% to 110% of the maximum achievable engine load available on the day of the test). The Permittee may submit to the EPA a written request for approval of an alternate load level for testing, but shall only test at that alternate load level after obtaining approval from the EPA.
 - (iv) During each test run, data shall be collected on all parameters necessary to document how emissions were measured and calculated (such as test run length, minimum sample volume, volumetric flow rate, moisture and oxygen corrections, etc.).
 - (v) Each test shall consist of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of the emission limits in this permit.
 - (vi) Performance test plans shall be submitted to the EPA for approval 60 calendar days prior to the date the test is planned.

Observations: The test plan was submitted on 4/21/16 and approved by EPA on 8/22/16. Note that EPA's 8/22/16 approval appears to be for the portable analyzer protocol.

However, the test plan is the same as was submitted to the EPA for the Argenta and Sunnyside compressor stations except the Ute plan also identifies Method 25a for measuring total hydrocarbons. EPA approved the Argenta and Sunnyside test plan on 7/12/16. The 4/21/16 document indicates the following test methods to be used include:

Table 4: Test methods used:

	Synopses of operational test methods
Flow Rate	EPA Method 19
H ₂ CO, NO _x CO, O ₂ and CO ₂	ASTM D6348-12**
O ₂ and CO ₂	EPA Method 3a
NO _x	Method 7e
CO	Method 10
THC	Method 25a

**MACT ZZZZ and NSPS JJJJ allow the use of ASTM D6348-03. During the records review Ms. Ostrand indicated that in the future, if Hilcorp intends to use ASTM D6348 they need to use ASTM D6348-03 rather than ASTM D6348-12.

- (vii) Performance test plans that have already been approved by the EPA for the emission unit approved in this permit may be used in lieu of new test plans unless the EPA requires the submittal and approval of new test plans. The Permittee may submit new plans for EPA approval at any time.

Table 5: Results from annual performance test:

Test Date	Engine	Serial #	% Load	Test length/ engine	NO _x lbs/hr	CO lbs/hr	H ₂ CO lbs/hr	Pres Drop	Inlet Cat Temp
9/19/17	E002	C-13014/1	86.4	3 1-hour	2.91	0.24	0.038	4.6	701
9/8/16	E002	C-13014/1	76.2	3 1-hour	1.42	0.39	0.078	2.6	492
8/31/15	E002	C-13014/1	75	3 1-hour	1.3	0.36	0.048	6.1	512
1/5/15	E002	C-13014/1	90	3 1-hour	2.38	0.58	0.074	3.9	656

- (viii) The test plans shall include and address the following elements:

- (A) Purpose of the test;
- (B) Engines and catalytic control systems to be tested;
- (C) Expected engine operating rate(s) during the test;
- (D) Sampling and analysis procedures (sampling locations, test methods, laboratory identification);
- (E) Quality assurance plan (calibration procedures and frequency, sample recovery and field documentation, chain of custody procedures); and
- (F) Data processing and reporting (description of data handling and quality control procedures, report content).

Observations: On 4/21/16 ConocoPhillips submitted the test plan and monitoring protocol for Ute. Generally, the test plan and monitoring protocol contain the above information. The 4/21/16 document indicates that historically performance testing for E-2 has been conducted in the 3rd quarter and portable monitoring in 1st, 2nd and 4th quarter.

- (e) The Permittee shall notify the EPA at least 30 calendar days prior to scheduled performance testing. The Permittee shall notify the EPA at least 1 week prior to scheduled performance testing if the testing cannot be performed.

Observations: Generally, Hilcorp (formerly ConocoPhillips) submits notifications of testing as required, except as highlighted below.

Table 6: Notification of testing:

Notification Date	Test date
No notification	9/6/17
8/18/16 (revised) 7/5/16 (original)	9/6/16 – 9/9/16
7/14/15	8/31/15
12/5/14	1/5/15

- (f) If the permitted engine is not operating, the Permittee does not need to start up the engine solely to conduct a performance test. The Permittee may conduct the performance test when the engine is started up again.

Observations: Annual emission reports provide the annual operating hours of engines. Based on the information received, E002 has been tested annually.

5. Monitoring Requirements

- (a) The Permittee shall continuously monitor the engine exhaust temperature at the inlet to the catalyst bed.

Observations: During the inspection, Ms. Ostrand observed the real-time pre-catalyst temperature being monitored on Engine #1 (C/13014/1). Additionally, in an email dated 6/25/18, Ms. Deal provided the catalyst inlet temperature data recorded between 6/25/16 and 4/30/18 at 2 engines, although only Engine E002 (Engine #1) is subject to the temperature requirements of the MNSR permit. Additionally, in an email dated 6/19/18, Ms. Deal provided a spreadsheet indicating reasons why temperature data may have been out of range.

Engine #1, 64,243 temperature values were reported, 1,156 (or 1.8%) were less than 450°F and none were greater than 1,350°F.

- (b) Except during startups, which shall not exceed 30 minutes, if the engine's exhaust temperature at the inlet to the catalyst bed deviates from the acceptable ranges specified in this permit then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit.

- (i) Within 24 hours of determining a deviation of the engine exhaust temperature at

the inlet to the catalyst bed, the Permittee shall investigate. The investigation shall include testing the temperature sensing device, inspecting the engine for performance problems and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and fouled, destroyed or poisoned catalyst).

- (ii) If the engine exhaust temperature at the inlet to the catalyst bed can be corrected by following the engine manufacturer and/or recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the engine exhaust temperature at the inlet to the catalyst bed within 24 hours of inspecting the engine and catalytic control system.
- (iii) If the engine exhaust temperature at the inlet to the catalyst bed cannot be corrected using the engine manufacturer and/or recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system has been damaged, then the affected engine shall cease operating immediately and shall not be returned to routine service until the following has been met:
 - (A) The engine exhaust temperature at the inlet to the catalyst bed is measured and found to be within the acceptable temperature range for that engine; and
 - (B) The catalytic control system has been repaired or replaced, if necessary.

Observations: See discussion above regarding review of the temperature data provided after the inspection. It's not clear what actions have been taken to address instances when temperature was out of range. As indicated above, a spreadsheet was provided that indicates reasons why the temperature may have been out of range. However, not all of the temperature readings less than 450°F are identified on the spreadsheet.

- (c) The Permittee shall monitor the pressure drop across the catalyst bed on the engine every 30 days using pressure sensing devices before and after the catalyst bed to obtain a direct reading of the pressure drop (also referred to as the differential pressure). [Note to Permittee: Differential pressure measurements, in general, are used to show the pressure across the filter elements. This information will determine when the elements of the catalyst bed are fouling, blocked or blown out and thus require cleaning or replacement.]

Observations: During the inspection, Ms. Ostrand observed the real-time pressure drop being monitored across the catalyst on all operating engines. Additionally, in emails dated 6/19/18 and 6/21/18, Ms. Deal provided spreadsheets containing pressure drop readings for C-13014/1 from 6/6/16 to 6/7/18. Based on the data submitted, multiple readings per day are recorded and then a daily average pressure drop reading is calculated. From the daily averages, a monthly pressure drop reading is calculated.

- (d) The Permittee shall perform the first measurement of the pressure drop across the catalyst bed on the engine no more than 30 days from the date of the initial performance test. Thereafter, the Permittee shall measure the pressure drop across the catalyst bed, at a

minimum, every 30 days. Subsequent performance tests, as required in this permit, can be used to meet the periodic pressure drop monitoring requirements provided it occurs within the 30-day window. The pressure drop reading can be a one-time measurement on that day, the average of performance test runs conducted on that day, or an average of all the measurements taken on that day if continuous readings are taken.

Observations: *See discussion immediately above.*

- (e) If the pressure drop reading exceeds ± 2 inches of water from the baseline pressure drop established during the most recent performance test, then the following actions shall be taken. The Permittee's completion of any or all of these actions shall not constitute, nor qualify as, an exemption from any other emission limits in this permit:
 - (i) Within 24 hours of determining a deviation of the pressure drop across the catalyst bed, the Permittee shall investigate. The investigation shall include testing the pressure transducers and assessing the catalytic control system for possible damage that could affect catalytic system effectiveness (including, but not limited to, catalyst housing damage, and plugged, fouled, destroyed or poisoned catalyst).
 - (ii) If the pressure drop across the catalyst bed can be corrected by following the catalytic control system manufacturer and/or vendor recommended procedures or equivalent procedures developed by the Permittee or vendor, and the catalytic control system has not been damaged, then the Permittee shall correct the problem within 24 hours of inspecting the catalytic control system.
 - (iii) If the pressure drop across the catalyst bed cannot be corrected using the catalytic control system manufacturer and/or vendor recommended procedures or equivalent procedures developed by the Permittee or vendor, or the catalytic control system is damaged, then the Permittee shall do one of the following:
 - (A) Conduct a performance test within 90 calendar days, as specified in this permit, to ensure that the NO_x, CO, and CH₂O emission limits are being met and to re-establish the pressure drop across the catalyst bed. The Permittee shall measure CO and NO_x emissions using a portable analyzer and a monitoring protocol approved by the EPA to establish a new temporary pressure drop baseline until a performance test can be scheduled and completed; or
 - (B) Cease operating the affected engine immediately. The engine shall not be returned to routine service until the pressure drop is measured and found to be within the acceptable pressure range for that engine as determined from the most recent performance test. Corrective action may include removal and cleaning of the catalyst or replacement of the catalyst.

Observations: *As indicated above, pressure drop readings from 6/6/16 to 6/7/18 were provided. The permit requires a comparison of the pressure drop to the baseline pressure drop established during the most recent performance test. The pressure drop data recorded during performance testing is provided in Table 5, above.*

The performance test on 8/31/15 sets the baseline pressure drop for an evaluation of pressure drop data from 6/6/16 to 9/7/16. Ms. Ostrand reviewed pressure drop data provided and found that between 6/6/16 and 9/7/16 none of the daily averages and calculated monthly pressure drop were within ± 2 inches of water of the baseline pressure drop.

The performance test on 9/8/16 sets the baseline for an evaluation for an evaluation of pressure drop data from 9/8/16 to 9/18/17. Ms. Ostrand reviewed the pressure drop data provided and found that between 9/8/16 to 9/18/17 only one daily average (on 1/29/17) exceeded ± 2 inches of water from the baseline pressure drop. All other daily averages and calculated monthly pressure drop readings were within ± 2 inches of water of the baseline pressure drop.

The performance test on 9/19/17 sets the baseline for an evaluation of the pressure drop data from 9/19/17 to 6/7/18. Ms. Ostrand reviewed the pressure drop data provided and found that between 9/19/17 to 6/7/18 all daily averages and calculated monthly pressure drop readings were within ± 2 inches of water of the baseline pressure drop.⁵

- (f) The Permittee shall measure NO_x and CO emissions from the engine at least quarterly to demonstrate compliance with the engine's emission limits in this permit. To meet this requirement, the Permittee shall:
 - (i) Measure NO_x and CO emissions at the normal operating load using a portable analyzer and a monitoring protocol approved by the EPA or conduct a performance test as specified in this permit;

Observations: *The portable monitoring protocol was submitted on 4/21/16 and approved by EPA on 8/22/16.*

- (ii) Measure the NO_x and CO emissions simultaneously; and
 - (iii) Commence monitoring for NO_x and CO emissions within 3 months of the Permittee's submittal of the initial performance test results for NO_x and CO emissions to the EPA.

Observations: *Portable analyzer monitoring results have been submitted. See results in Table 7, below. Quarterly monitoring occurs in the 1st, 2nd, and 4th quarters and annual 3 1-hour performance tests are conducted in the 3rd quarter of the year.*

⁵ The 1/31/18 annual deviation report indicates that the "pressure drop across the catalyst bed was not always maintained within ± 2 inches of water during the reporting period. Fluctuations in pressure drop across the catalysts can occur due to changes in engine operating load." The deviation reports indicate that no corrective actions were taken because monthly portable analyzer screenings or tests are conducted and [quarterly] performance tests consistently demonstrate emission limits are being met." The EPA notes that only one daily average in 2017 exceeded the ± 2 inches of water requirement.

Table 7: Quarterly portable analyzer monitoring results:

<i>Test Date</i>	<i>Engine</i>	<i>Serial #</i>	<i>% Load</i>	<i>Test length/ engine</i>	<i>NOx lbs/hr</i>	<i>CO lbs/hr</i>	<i>Pres Drop</i>	<i>Inlet Cat Temp</i>
3/6/18	E002	C-13014/1	60	1- 21- minute	0.81	0.45	4.2	513
12/6/17	E002	C-13014/1	60	1 -21- minute	0.99	0.41	4.2	514
6/6/17	E002	C-13014/1	60	1 -21- minute	1.40	0.60	3.5	523
3/7/17	E002	C-13014/1	60	1 -21- minute	0.94	0.55	4.0	631
12/12/16	E002	C-13014/1	60	1 -21- minute	0.89	0.55	3.9	626
6/15/16	E002	C-13014/1	48	1 -21- minute	1.10	0.47	3.4	504
3/8/16	E002	C-13014/1	52	1 -21- minute	1.22	0.60	4.8	635

- (g) The Permittee shall not perform engine tuning or make any adjustments to engine settings, catalytic control system settings, or processes or operational parameters on the day of or during measurements. Any such tuning or adjustments may result in a determination by the EPA that the result is invalid. Artificially increasing an engine load to meet the testing requirements is not considered engine tuning or adjustments.

Observations: *The EPA has not been present during testing. During the record review Ms. Deal indicated that since she's been there she is not aware of any tuning or adjustments being made during testing.*

- (h) If the results of 2 consecutive quarterly portable analyzer measurements demonstrate compliance with the NO_x and CO emission limits, the required monitoring frequency may change from quarterly to semi-annually.

Observations: *On 1/3/18 Hilcorp submitted test results and portable monitoring results from the third and fourth quarter 2017. Hilcorp's 1/3/18 letter indicates that they are going to go to semiannual monitoring since they had two quarters of data showing compliance with NO_x and CO limits.*

- (i) If the results of any subsequent portable analyzer measurements demonstrate non-compliance with the NO_x or CO emission limits, required monitoring frequency shall change from semi-annually to quarterly.

Observations: *To date, no quarterly test results have shown non-compliance with emission limits.*

- (j) The Permittee shall submit portable analyzer specifications and monitoring protocols for NO_x and CO to the EPA at the following address for approval at least 45 calendar days prior to the date of initial portable analyzer monitoring:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Observations: *A portable analyzer protocol was submitted to EPA on 4/13/16. EPA approved the protocols on 7/12/16. The 4/13/16 submittal indicates that they are using the Wyoming Portable Analyzer Protocol for testing.*

- (k) Portable analyzer specifications and monitoring protocols that have already been approved by the EPA for the emission units approved in this permit may be used in lieu of new protocols unless the EPA requires the submittal and approval of a new protocol. The Permittee may submit a new protocol for EPA approval at any time.
- (l) The Permittee is not required to conduct emissions monitoring of NO_x, CO, and CH₂O emissions and parametric monitoring of exhaust temperature and catalyst differential pressure on engines that have not operated during the monitoring period. The Permittee shall certify that the engine did not operate during the monitoring period in the annual report specified in this permit.

Observations: *The annual emissions report identifies the operating hours of the engines. As indicated in the Table 7, above, it appears that E002 has been tested quarterly.*

6. Recordkeeping Requirements

- (a) Records shall be kept of manufacturer and/or vendor specifications or equivalent specifications developed by the Permittee or vendor, and maintenance requirements for the engine, catalytic control system, temperature-sensing device, and pressure-measuring device.

Observations: *During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. Ms. Deal indicated that the catalyst maintenance is also included in the Task Lists. In an email dated 6/6/18, Ms. Deal provided engine and catalyst manufacturer recommended maintenance specifications.*

- (b) Records shall be kept of all calibration and maintenance conducted for the engine, catalytic control system, temperature-sensing device, and pressure-measuring device.

Observations: *In an email dated 6/25/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. The 6-month maintenance was specific to the catalyst. Additionally, Ms.*

Deal provided a spreadsheet indicating when preventative maintenance, including maintenance on the catalyst, had been conducted in 2016, 2017 and 1/2018.

- (c) Records shall be kept that are sufficient to demonstrate that the fuel used for the engine is pipeline-quality natural gas in all respects, with the exception of CO₂ concentrations.

Observations: *In an email dated 6/25/18, Ms. Deal indicated that they perform annual gas analysis to demonstrate that the fuel used for the engine is pipeline quality natural gas. Ms. Deal's 6/25/18 email contained an email from Adam Eisele, EPA to Sherrie McGowan, ConocoPhillips, where Mr. Eisele indicated that annual natural gas fuel testing was sufficient.*

- (d) Records shall be kept of all temperature measurements required in this permit, as well as a description of any corrective actions taken pursuant to this permit.

Observations: *Temperature measurement data was provided on request.*

- (e) Records shall be kept of all pressure drop measurements required in this permit, as well as a description of any corrective actions taken pursuant to this permit.

Observations: *Pressure drop measurement data was provided upon request.*

- (f) Records shall be kept of all required testing and monitoring in this permit. The records shall include the following:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used;
- (v) The results of such analyses or measurements; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Observations: *The performance test reports are submitted to EPA within required timeframes, except as noted above. Quarterly monitoring reports have also been submitted to EPA.*

- (g) Records shall be kept of all catalyst replacements or repairs, engine rebuilds and engine replacements.

Observations: *As of the date of this report the catalyst pressure drop data had not yet been provided to EPA.*

- (h) Records shall be kept of each rebuilt or replaced engine break-in period, pursuant to the requirements of this permit, where an existing engine that has been rebuilt or replaced resumes operation without the catalyst control system, for a period not to exceed 200 operating hours.

Observations: *This information was not reviewed.*

- (i) Records shall be kept of each time the engine is shut down due to a deviation of the inlet temperature to the catalyst bed or pressure drop across the catalyst bed. The Permittee shall include in the record the cause of the problem, the corrective action taken, and the timeframe for bringing the pressure drop and inlet temperature range into compliance.

***Observations:** In an email dated 6/25/18, Ms. Deal indicated that to their "knowledge a permitted engine has never been shut down due to deviations of the inlet temperature or catalyst bed or pressure drop across the catalyst bed."*

D. Requirements for Pneumatic Controllers

1. The Permittee shall install, maintain, and operate pneumatic controllers that meet one or more of the following emission control technologies:
 - (a) Air actuated controllers;
 - (b) Electronically actuated controllers;
 - (c) Low-bleed natural gas actuated controllers (no more than 6 standard cubic feet per hour of natural gas); or
 - (d) No-bleed natural gas actuated controllers.

***Observations:** Mr. Minton indicated that all pneumatic controllers were low bleed or no bleed controllers. In an email dated 6/29/18, Ms. Deal provided a spreadsheet identifying the types of pneumatic controllers installed at the facility. The pneumatic controllers installed at Ute are identified in Attachment 1.*

2. Each controller shall be operated and maintained according to manufacturer or vendor specifications or equivalent procedures developed by the Permittee or vendor.
3. Beginning with the effective date of this permit, records shall be kept of the date of installation of the controllers, the manufacturer or vendor specifications of the controllers or equivalent specifications developed by the Permittee or vendor, and all scheduled maintenance and repairs on the controllers.

***Observations:** In an email dated 6/29/18, Ms. Deal provided a spreadsheet identifying the types of pneumatic controllers installed at the facility. Ms. Deal also provided manufacturer literature, or links to manufacturer literature, on the controllers. Ms. Deal indicated that they have no records of the pneumatic controllers needing maintenance or repairs during 5/1/16 – 4/30/18.*

E. Requirements for Condensate Storage Tanks

1. Applicability

The requirements in this section apply to two (2) 300-barrel capacity storage tanks used to store natural gas condensate.

2. Monitoring Requirements

- (a) The Permittee shall physically inspect the condensate tanks each month using AVO

methods to detect leaks that could result in air emissions.

- (b) The inspection shall include thief hatches, storage tanks, and associated process piping, but shall not include normal storage tank venting.
- (c) The monthly inspections shall be separated by at least 14 calendar days.
- (d) In the event that a leak or defect is detected, the Permittee shall repair the leak or defect according to the following schedule:
 - (i) A first attempt at repair shall be made no later than 15 calendar days after the leak is detected;
 - (ii) If the repair involves installation of parts that cannot be obtained within the first 15 calendar-day window, the repair may be delayed until the next 15 calendar-day period;
 - (iii) Repair shall be completed no later than 30 calendar days after the leak or defect is detected;
 - (iv) If the repair cannot be completed within the 30-day window because it requires a shutdown of the entire facility and/or replacement parts are unavailable, the repair may be delayed until the next process unit shutdown. Leaking equipment shall be repaired by the end of the next process shutdown.
 - (v) Grease or another applicable substance shall be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.

Observations: *During the inspection, David Heermance, air quality specialist with the Southern Ute Indian Tribe, observed with the FLIR camera, emissions from the condensate tank. On 5/24/18, Ms. Ostrand forwarded Ms. Deal still images from the FLIR video.*

In an email dated 6/25/18, Ms. Deal provided a spreadsheet identifying all the tank inspections and 4 pdfs of actual tank inspections. The 4 pdfs do not identify any leaks with the tanks. The spreadsheet just indicates when inspection occurred but does not identify if any issues were found with the tanks.

3. Recordkeeping Requirements:

The Permittee shall maintain records of each AVO inspection to include the date of inspection, a description of each leak or defect identified, the corrective actions taken to repair the leak or defect, and the date of repair.

Observations: *See immediately above.*

F. Requirements for Leak Detection and Repair (LDAR)

1. The Permittee shall implement a LDAR monitoring program for detecting emissions of volatile organic compound (VOC) emissions due to leaking equipment.

Observations: Hilcorp (and formerly ConocoPhillips) submits semiannual and annual reports of the LDAR monitoring that occurs at the facility.

2. The Permittee shall develop a written LDAR protocol that, at a minimum, specifies the following:

- (a) The use of an infrared camera for the detection of VOC leaks;
- (b) The technical procedures for monitoring with the infrared camera;
- (c) A schedule for conducting semiannual monitoring;
- (d) Monitoring of "equipment" per the approved LDAR protocol;
- (e) A definition of when a "leak" is detected;
- (f) A repair schedule for leaking equipment (including delay of repair); and
- (g) A recordkeeping format.

Observations: The LDAR protocol was submitted to EPA on 7/31/12.

3. The Permittee shall submit the LDAR protocol to the EPA at the following address for approval at least 45 calendar days prior to the date of initial monitoring:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

4. LDAR protocols that have already been approved by the EPA may be used in lieu of new protocols unless the EPA requires the submittal and approval of a new LDAR protocol.
5. The Permittee may submit a revised LDAR protocol at any time for EPA approval. The existing LDAR protocol will remain in effect until a revised LDAR protocol is approved by the EPA.

Observations: The LDAR protocol was submitted to EPA on 5/15/12. Ms. Deal also provided a copy of the protocol on 6/25/12. Neither Ms. Deal nor Ms. Ostrand could find a copy of EPA's approval. However, a 7/31/12 letter from ConocoPhillips submitting the Argenta and Sunnyside Compressor Station LDAR protocol indicates that the Ute LDAR protocol was approved in a 5/24/12 email from EPA.

6. In the event that the EPA determines that the LDAR monitoring program is not meeting its intended goals, the Permittee shall submit a revised LDAR protocol upon request by the EPA.

Observations: EPA has not determined that the LDAR monitoring program is not meeting its intended goals.

7. Leak detection monitoring shall commence upon approval of the LDAR protocol by the EPA.

Observations: *The LDAR protocol was submitted to EPA on 5/15/12. Based on LDAR reports submitted, LDAR monitoring is being conducted.*

8. LDAR monitoring shall be conducted at least semi-annually in accordance with an approved LDAR protocol and shall be conducted a minimum of 5 calendar months apart.

Observations: *Hilcorp (formerly ConocoPhillips) submits semiannual and annual reports of the LDAR monitoring that is conducted. According to the semiannual reports, monitoring has been conducted on: 4/10/18; 9/14/17; 3/13/17; 9/13/16; 3/7/16; 9/2/15; 3/10/15; 9/9/14; and 3/18/14.*

9. The Permittee shall notify the EPA in writing at least 30 calendar days prior to any LDAR monitoring conducted. If monitoring cannot be performed on the scheduled date, the Permittee shall notify EPA at least 1 week prior to the scheduled date and reschedule the monitoring to satisfy the monitoring frequency requirements.

Observations: *Notifications were provided to the EPA as follows:*

<i>Notification Date</i>	<i>Monitoring Date</i>
<i>3/9/18</i>	<i>4/9/18 – 4/10/18</i>
<i>8/7/17</i>	<i>9/13/17 – 9/14/17</i>
<i>2/9/17</i>	<i>3/13/17 – 3/14/17</i>
<i>7/5/16</i>	<i>9/12/16 – 9/14/16</i>
<i>1/15/16</i>	<i>3/7/16 – 3/11/16</i>

10. The Permittee shall maintain a record of all EPA approved LDAR protocols.

Observations: *During the records review, EPA observed the LDAR Protocol on file. Ms. Deal also submitted a copy of the protocol on 6/25/18. Neither Ms. Deal nor Ms. Ostrand could find a copy of EPA's approval. However, a 7/31/12 letter from ConocoPhillips submitting the Argenta and Sunnyside Compressor Station LDAR protocol indicates that the Ute LDAR protocol was approved in a 5/24/12 email from EPA.*

11. The Permittee shall maintain a record of the results of all LDAR monitoring and any necessary equipment repairs due to VOC leaks.

Observations: *Hilcorp (formerly ConocoPhillips) submits semiannually and annually the results of all LDAR monitoring. The LDAR reports identify equipment leaks and repairs.*

G. Requirements for Records Retention

1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

Observations: *Records for the previous two years were reviewed by Ms. Ostrand.*

2. Records shall be kept in the vicinity of the facility, such as at the facility, the location that has day-to-day operational control over the facility, or the location that has day-to-day responsibility for compliance of the facility.

Observations: Records were reviewed at Hilcorp's offices in Aztec, NM located somewhat near Ute. Ms. Deal submitted additional records upon request.

H. Requirements for Reporting

1. Annual Emission Reports

- (a) The Permittee shall submit a written annual report of the actual annual emissions from all emission units at the facility covered under this permit; including emissions from start-ups, shutdowns, and malfunctions, each year no later than April 1st. The annual report shall cover the period for the previous calendar year. All reports shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act compliance for the Permittee.

Observations: Annual emissions reports have been submitted, and show facility-wide emissions (tpy), as follows:

Table 8: Reported annual emissions

<i>Report Date</i>	<i>Year</i>	<i>NO_x*</i>	<i>CO*</i>	<i>VOC*</i>	<i>PM*</i>	<i>SO₂*</i>	<i>CH₂O*</i>	<i>Benzene</i>	<i>Total HAPs*</i>
2/1/18	2017	56.27	56.27	40.37	0.89	1.96	4.08	0.21	6.28
3/28/17	2016	55.4	54.38	37.6	0.8	1.2	4.02	0.17	5.04
3/31/16	2015	55.39	NR	86.11	0.77	1.16	4.03	1.02	34.39
3/31/15	2014 ⁶	11.84	11.59	9.38	0.17	0.25	0.86	0.16	2.02

*NO_x = nitrogen oxide; CO = carbon monoxide; VOC = volatile organic compound; PM = particulate matter; SO₂ = sulfur dioxide; CH₂O = formaldehyde; HAP = hazardous air pollutant.; NR = Not reported.

- (b) The report shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

The report may be submitted via electronic mail to r8AirPermitting@epa.gov.

2. All other documents required to be submitted under this permit, with the exception of the Annual Emission Reports, shall be submitted to:

⁶ For October 15, 2014 to December 31, 2014.

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

All documents may be submitted electronically to r8airreportenforcement@epa.gov.

3. The Permittee shall submit a written LDAR monitoring report each year no later than April 1st. The annual report shall include the semi-annual LDAR monitoring results for the previous calendar year.

Observations: Reports were submitted as follows:

<i>Report Date</i>	<i>Monitoring Dates</i>
<i>1/30/18</i>	<i>3/13/17; 9/14/17</i>
<i>3/28/17</i>	<i>3/7/16; 9/13/16</i>
<i>2/11/16</i>	<i>3/10/15; 9/22/15</i>
<i>2/12/15</i>	<i>3/19/14; and 9/10/14</i>

4. The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements and a description of the probable cause of such deviations and any corrective actions or preventative measures taken. A “prompt” deviation report is one that is post marked or submitted via electronic mail to r8airreportenforcement@epa.gov as follows:
 - (a) Within 30 days from the discovery of any deviation of the emission or operational limits that is left un-corrected for more than 5 days after discovering the deviation;
 - (b) Within 30 days from the discovery of an equipment leak as a result of the semi-annual LDAR monitoring that is left un-corrected for more than 5 days after discovering the leak; and
 - (c) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the emission limits.

Observations: Hilcorp (formerly ConocoPhillips) has submitted annual deviation reports as follows:

Table 9: Deviation reports

<i>Report Date</i>	<i>Deviations noted</i>
<i>1/31/18</i>	<ul style="list-style-type: none"> • <i>Failing to meet E002 engine pressure drop requirements</i> • <i>Failing to notify EPA prior to testing</i> • <i>Failing to submit test report within 60 days.</i>
<i>3/28/17</i>	<ul style="list-style-type: none"> • <i>Intermittent compliance with temperature requirements for E-2</i> • <i>Intermittent compliance regarding testing plan</i> • <i>Intermittent compliance regarding prompt deviation reporting</i>

3/31/16	<ul style="list-style-type: none"> • Intermittent compliance with MACT HH DEHY-1 requirements • Intermittent compliance with temperature requirements for E-2 • Intermittent compliance regarding testing plan • Intermittent compliance regarding prompt deviation reporting • Intermittent compliance with MACT HH DEHY-1 requirements
3/31/15	<ul style="list-style-type: none"> • No deviations reported

5. The Permittee shall submit a written report for any required performance tests to the EPA Regional Office within 60 days after completing the tests.

Observations: Generally, Hilcorp (formerly ConocoPhillips) submits reports as required, except as highlighted below.

Table 10: Performance test submittals

<i>Date of testing</i>	<i>Date report submitted</i>
9/19/17	1/31/18
9/9/16	9/20/16
8/31/15	10/1/15
1/5/15	2/4/16

6. The Permittee shall submit any record or report required by this permit upon EPA request.

Observations: Following the onsite inspection, Ms. Ostrand requested multiple documents. Ms. Deal provided the information as requested.

X. Subpart JJJJ Requirement:

Engine E001 (Engine #3) is subject to NSPS.JJJJ.

A. 40 CFR § 60.4230 Am I subject to this subpart?

(1) - (4) *Do not apply to Ute.*

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b)-(f) *Do not apply to Ute.*

Observations: *The permit application indicates that that E-1 [E001] was modified in 2011 and is subject to Subpart JJJJ and that E-2 [E002] was constructed prior to July 1, 2007 and is not subject to Subpart JJJJ.*

B. 40 CFR § 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) – (e), (g) and (h) *Do not apply to Ute.*

(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.

(1) – (3), and (5) *Do not apply to Ute.*

(4) Owners and operators of stationary *SI natural gas* and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NOX) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NOX emission standard of 250 ppmvd at 15 percent oxygen (O₂), a CO emission standard 540 ppmvd at 15 percent O₂ (675 ppmvd at 15 percent O₂ for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O₂, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) –(iv) *Do not apply to Ute.*

Observations: *E-1 [E001] is subject to the emission limits in § 60.4233(f)(4). See performance testing results in Table 11, below.*

C. 40 CFR § 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a), (b) [except as noted below] (d), (f), and (h) *Do not apply to Ute*

(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii)** of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).

******(b)(2)(i) *does not apply to Ute.*

(b)(2)(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

Observation: *Hilcorp (and formerly ConocoPhillips) tests the engine annually. During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. In an email dated 6/6/18, Ms. Deal provided engine manufacturer recommended maintenance specifications. In an email dated 6/25/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018.*

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

Observations: *In an email dated 5/30/18, Ms. Deal indicated that the engine does not use propane and the engine does have an AFR controller.*

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

Observations: *During the onsite inspection, Mr. Minton indicated that all engines have AFR controllers.*

(i) If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (i)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

Observations: Hilcorp (and formerly ConocoPhillips) conducts annual performance testing on E001. See results shown in the Table 11, below.

D. 40 CFR § 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

This table identifies the approved test methods that can be used, and procedures to follow, for determining sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; O₂ concentration; exhaust flowrate; moisture; and NO_x, CO and VOC concentrations.

Observations: Test results for engine E001 Waukesha L5790GL, Serial number 240747.

Table 11: Performance test results:

Test Date	NO _x Method	NO _x g/hp-hr	CO Method	CO g/hp-hr	VOC Method	VOC g/hp-hr	O ₂ /CO ₂ Method	O ₂ /CO ₂ ppmv
4/25/18	ASTM	0.86	ASTM	0.16	ASTM	0.24	ASTM	8.76/7.19
4/26/17	ASTM	1.12	ASTM	0.09	ASTM	0.25	ASTM	8.59/7.15
4/28/16	7E	0.47	10	0.01	25A	0.71	3A	9.98/6.26

ASTM = ASTM D6348-03

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

Observations: Test results for engine E001 Waukesha L5790GL, Serial number 240747:

Table 12: NSPS JJJJ testing parameters for E001

Test Date	3 – 60-minute test runs	Average % Load
4/25/18	Yes	89
4/26/17	Yes	70
4/28/16	Yes	47

(d) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

Where:

$$ER = (Cd * 1.912 * 10^{-3} * Q * T)/(HP-hr) \text{ (Eq.1)}$$

ER = Emission rate of NOX in g/HP-hr.

Cd = Measured NOX concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NOX to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

Observations: EPA ran the above calculations with the performance test NOx data provided in all three runs of the 4/25/18, 4/26/17, 4/28/16 tests. EPA's calculated NOx g/hp-hr results match those presented in the testing reports.

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = (Cd * 1.164 * 10^{-3} * Q * T)/(HP-hr) \text{ (Eq.2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

Cd = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

Observations: EPA ran the above calculations with the performance test CO data provided in all three runs of the 4/25/18, 4/26/17, 4/28/16 tests. EPA's calculated CO g/hp-hr results match those presented in the testing reports.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = (Cd * 1.833 * 10^{-3} * Q * T)/(HP-hr) \text{ (Eq.3)}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

Cd = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

Observations: EPA ran the above calculations with the performance test VOC data provided in all three runs of the 4/25/18, 4/26/17, 4/28/16 tests. EPA's calculated VOC g/hp-hr results match those presented in the testing reports.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option ...
Hilcorp did not use this option with the 4/25/18 performance testing.

E. 40 CFR § 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) Does not apply to Ute.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

Observations: In an email dated 6/28/18 Ms. Deal indicated that she could not locate the initial notification. However, Ms. Deal noted that the permit application submitted on 8/28/12 indicates the engine is subject to NSPS JJJJ. Results of performance testing are shown in Table 11 above.

See Section C. above for a discussion on engine maintenance.

(b) and (e) *Do not apply to Ute.*

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

Observations: *The 8/28/12 permit application contains the required information.*

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

Observations: *Test results for engine E001 Waukesha L5790GL, Serial number 240747.*

Table 12: NSPS JJJJ test report submittals

<i>Test Conducted</i>	<i>Report Submitted</i>
<i>4/25/18</i>	<i>5/1/18</i>
<i>4/26/17</i>	<i>5/16/17</i>
<i>4/28/16</i>	<i>5/12/16</i>

XI. Subpart ZZZZ Requirements:

Hilcorp has indicated that the engines at Ute are consider remote designated engines in accordance with NESHAP ZZZZ practices.

A. 40 C.F.R. § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you. *[Note 2b does not apply to Ute's engines.]*.

Table 2d - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

8. For each Non-emergency, non-black start 4SLB and 4SRB remote stationary RICE >500 HP You must meet the following requirement, except during periods of startup:
- a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;⁷
 - b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary

(b) through (e) *do not apply to Ute.*

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

Observations: *During the records, Ms. Ostrand observed the initial and annual remote determinations.*

B. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

⁷ Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in *Table 6* to this subpart.

Table 6 - Continuous Compliance With Emission Limitations, and Other Requirements

9. Existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are *remote stationary RICE*

a. Work or Management practices

i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(b) – (d), and (f) *do not apply to Ute.*

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.

Observations: *During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. In an email dated 6/6/18, Ms. Deal provided engine manufacturer recommended maintenance specifications. In an email dated 6/25/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018. The records indicate that the oil and oil filter is inspected or replaced, and the spark plugs and belts inspected or replaced, regularly.*

C. 63.6655 What records must I keep?

(a) –(d) and (f) *Do not apply to Ute.*

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) and (2) *Do not apply to Ute.*

(3) An existing stationary RICE located at an area source of HAP emissions subject to the management practices as shown in Table 2d to this subpart.

Observations: During the records review, Ms. Deal indicated that the manufacturer recommended engine maintenance is included in a "Task List" for the engine. In an email dated 6/6/18, Ms. Deal provided engine manufacturer recommended maintenance specifications. In an email dated 6/25/18 Ms. Deal provided example preventative maintenance checklists for the 1-month, 2-month, 4-month, 6-month and 1-year preventative maintenance that had been completed. Additionally, Ms. Deal provided a spreadsheet indicating when preventative maintenance had been conducted in 2016, 2017 and 1/2018. During the record review Ms. Deal also shared the initial and annual determinations that the engines are remote.

D. § 63.6675 What definitions apply to this subpart

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area ... *Does not apply to Ute.*

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment.

Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25-mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Observations: EPA observed the initial and annual remote determinations during the records reviews.

XII. Closing meeting:

We left the onsite inspection at 9:00 am. We left the Hilcorp's offices following the record review at 1:20 pm. Ms. Ostrand indicated that she would be requesting additional information.

XIII. Findings:

As of the date of this inspection report, not all needed information was provided. Once all information is received EPA will issues an addendum to this report. EPA is still waiting to receive catalyst replacement information from 5/1/16 to 4/30/18.

- If ASTM D6348 is going to be used for performance testing, the performance test protocol should be revised to assure that ASTM D6348-03 is used rather than ASTM D6348-12.*
- Based on the information provided, it's not clear whether all appropriate actions have been taken when engine pre-catalyst temperature falls below 405°F;*
- When Hilcorp initially purchased Ute they were late in submitting performance test results and failed to notify EPA of upcoming testing. This issue has since been resolved.*

XIV. Picture/IR Video Log:

Table 11: Picture Log

<i>Image #</i>	<i>Photographer</i>	<i>Date and Time</i>	<i>Description</i>
<i>RIMG0021.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 8:19 am</i>	<i>Ute CS showing the blinded off line of gas to the dehydrator.</i>
<i>RIMG0022.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 8:21 am</i>	<i>Ute CS dehy reboiler and tank no longer connected.</i>
<i>RIMG0023.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 8:29 am</i>	<i>Ute CS backside of engines, catalyst part of muffler, Engine #3 closest and Engine #1 farthest away.</i>
<i>RIMG0024.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 8:34 am</i>	<i>Ute CS tanks. Two larger tanks are condensate in back, tank front right is used oil, middle tank is new oil and tank on left is antifreeze.</i>
<i>RIMG0025.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 9:02 am</i>	<i>Ute CS, Inlet on left on methanol tank on right.</i>
<i>RIMG0026.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 9:02 am</i>	<i>Ute CS compressor building.</i>
<i>RIMG0027.jpg</i>	<i>Laurie Ostrand</i>	<i>5/15/18, 9:05 am</i>	<i>Ute CS Inlet on right and two dehy contactors (not operating).</i>

Table 12 – FLIR Video Log

<i>Video #</i>	<i>Photographer</i>	<i>Date and Time</i>	<i>Description</i>
<i>0226_Ute Leaking Condensate Tank.mp4</i>	<i>David Heermance</i>	<i>5/15/18, 8:37 am</i>	<i>Appears to be leaking from condensate tanks</i>
<i>0227_Ute Leaking</i>	<i>David</i>	<i>5/15/18, 8:51 am</i>	<i>Appears to be leaking flow controller</i>

<i>Flow Controller.mp4</i>	<i>Heermance</i>		
<i>0028_Ute Leaking Turbo.mp4</i>	<i>David Heermance</i>	<i>5/15/18, 8:52 am</i>	<i>Appears to be leaking turbo</i>
<i>0229_Ute Leaking Engine.mp4</i>	<i>David Heermance</i>	<i>5/15/18, 8:54 am</i>	<i>Appears to be leaking Engine</i>
<i>0230_Ute Leaking Breather.mp4</i>	<i>David Heermance</i>	<i>5/15/18, 8:58 am</i>	<i>Appears to be leaking breather on engine</i>

Attachment 1 Pneumatics at Ute

<i>PropertyID</i>	<i>EQUIP_ID</i>	<i>EQUIP_DESC</i>	<i>FL_NAME</i>	<i>MFG_MAKE_MODEL</i>	<i>PneumControllerFunction</i>	<i>PneumControllerType</i>	<i>installDate</i>
30FAC00236	11477350	SEP,HORI,2PH	UTE CDP	EMERSON/FISHER L2	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11477350	SEP,HORI,2PH	UTE CDP	NORRISEAL 1001A	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11477350	SEP,HORI,2PH	UTE CDP	NORRISEAL 1001A	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11621300	SEP,VERT,2PH	UTE CDP	MALLARD 3200	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11621300	SEP,VERT,2PH	UTE CDP	MALLARD 3200	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11621303	SEP,VERT,2PH	UTE CDP	MALLARD 3200	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11621303	SEP,VERT,2PH	UTE CDP	MALLARD 3200	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11621306	SEP,VERT,2PH	UTE CDP	NORRISEAL 1001	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	11639476	PKG,CMP,WAUKE SHA, L7042GL,ARIEL,JG K-4(#1)	UTE CDP	EMERSON/FISHER 4194	Pressure	Low-Bleed Pneumatic Devices	Pre-2006
30FAC00236	11639476	PKG,CMP,WAUKE SHA, L7042GL,ARIEL,JG K-4(#1)	UTE CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006
30FAC00236	11639476	PKG,CMP,WAUKE SHA, L7042GL,ARIEL,JG K-4(#1)	UTE CDP	MURPHY LS200N	Level	Intermittent Bleed Pneumatic Devices	Pre-2006
30FAC00236	11639506	PKG,CMP,WAUK, L5790GL,WORTH(# 3)	UTE CDP	EMERSON/FISHER 4194	Pressure	Low-Bleed Pneumatic Devices	5/23/2007

30FAC00236	12140226	SEP,VERT,2PH	UTE CDP	KIMRAY T12	Temperature controller	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	12140226	SEP,VERT,2PH	UTE CDP	NORRISEAL 1001	Level	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	12140271	HEATER,LINE,INDIRECT	UTE CDP	KIMRAY T12	Temperature controller	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	12140271	HEATER,LINE,INDIRECT	UTE CDP	KIMRAY T12	Temperature controller	Intermittent Bleed Pneumatic Devices	Pre-2011
30FAC00236	12146222	SEP,VERT,2PH	UTE CDP	EMERSON/FISHER Series 2900	Liquid level controller	Intermittent Bleed Pneumatic Devices	Pre-2011